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- BRIDGES AND VIADUCTS

Pedestrian bridges

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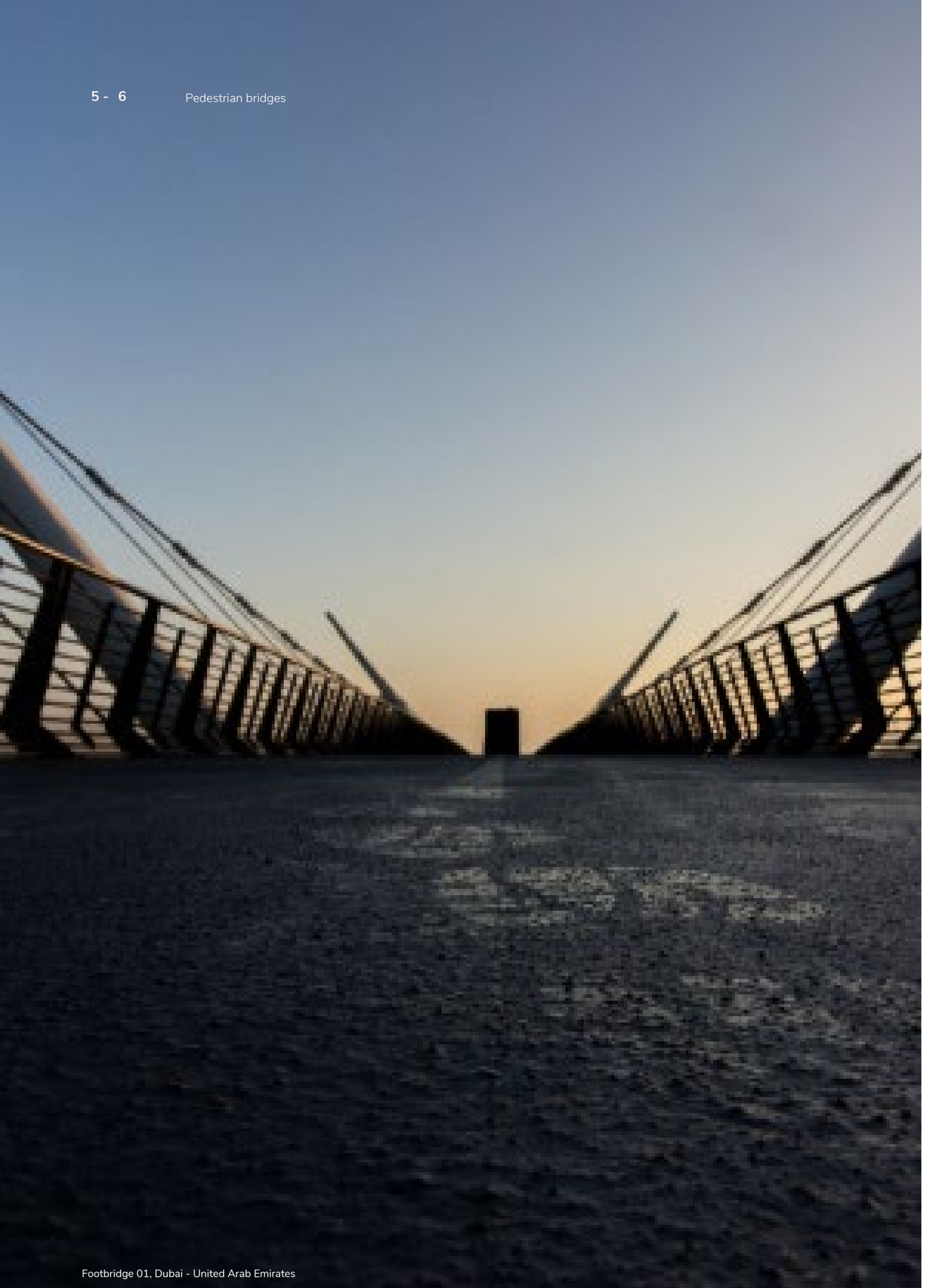
Specialist in the **design**, **manufacturing** and **installation** of steel structures

About Maeg

Maeg is an international player in the construction sector. With more than 40 years of experience, Maeg's expertise can adapt to each project characteristics to devise tailor-made and innovative engineering solutions, concretely transforming design into substance.

ISO 9001:2015 ISO 1090-1/2 ISO 3834 EURO SOA RFI - SQ008 TMF-001 AFER RVS-15.05.11



Footbridge 01, Dubai - United Arab Emirates

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List of projects

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FOOTBRIDGE LA ROCHELLE

Location
La Rochelle, France

Client
Communauté d'Agglomération de la Rochelle

Contractor
Joint-Venture Bouygues Travaux Publics Régions France – Maeg Costruzioni SpA

Scope of work
Design, fabrication, and installation of steel structures

Period of execution
20120-2021

Weight
700 tons

Length
191 meters

The footbridge at La Rochelle station is part of the urban development project around the station which, from the square, reconsiders the development of the city as a logistic hub for the region.

In plan, the footbridge presents a L-shape with a 36 meters long ramp turning in a 155 meters long footbridge crossing the below railways, with the longest span measuring 48 meters. The deck has a variable section to deliver a fine structure varying along its length to create movement and lightness, and it is supported by eleven bifurcated steel columns. Part of the realization, the footbridge includes a protective roof. The footbridge creates an urban link between the centre of the city and the developing neighbourhoods on the other side of the station, offering a place of nature and connection.

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CYCLE-PEDESTRIAN WALKWAY

Location
Albi, France

Client
Communauté d'agglomération de l'Albigeois

Contractor
IOA/MAEG/C2ODA/IOA SAS

Scope of work
Design and fabrication of steel structures

Period of execution
2019

Weight
265 tons

Length
182 meters

Construction of a steel cycle-pedestrian walkway in Albi, France. The structure is designed in harmony with the historic railway viaduct that crosses the Tarn river and it will reduce traffic on the main roads, by promoting connections between the historic center and the surrounding neighborhoods.

The walkway is cantilevered fixed to the railway viaduct, built in the nineteenth century. The metal structure is composed of hollows with variable triangular section, where the minimum width is in correspondence with the piers of the viaduct, extended below each span, forming a terrace up to 3.5 meters wide, from which to admire the views of Albi, UNESCO World Heritage. On the sides, the metal structure is placed on two concrete abutments, into the banks of the Tarn river.

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FOOTBRIDGE 03

Location
Dubai, United Arab Emirates

Client
Joint Venture Road & Transport Authority (RTA), Meydan and Meraas

Contractor
Belhasa Six Construct LLC

Scope of work
Design, fabrication and installation of steel structures

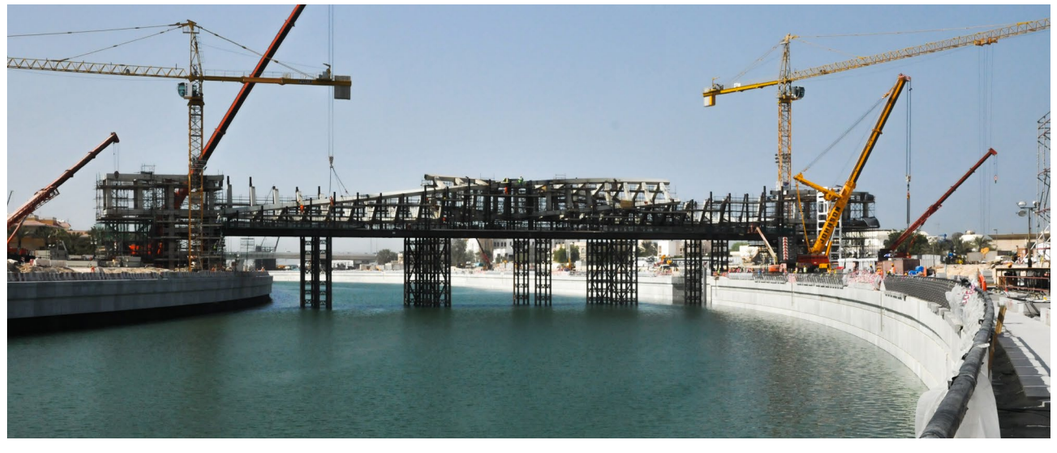
Period of execution
2016

Weight
1.380 tons

Length
170 meters

Third footbridge crossing the Dubai Water Canal, it is a parallelepiped twisting of 180 degrees, wrapping around the internal walkway and offering a dynamic movement that accompanies those who pass through it. The footbridge is cladded with a series of aluminium frames protecting from the sun from an oblique angle but allowing, when passing through, an open view towards the city skyline.

The construction phase took place during one of the most critical moments along the realization of the Dubai Water Canal, just before the flooding of the canal to achieve the inauguration date. This condition prevented the possibility to work from inside the canal and forced to complete the installation in a little more than a month: the solution has been the installation of a temporary bridge that firstly supported preassembled elements until welding completion also ensuring a working surface to operate, which has then been removed at once. The temporary bridge has been indeed hooked to a barge that, taking advantage of the low tide, has been freed from the permanent structure and then transported somewhere else to dismantle it separately. The footbridge measures 6.5*6.5 meters and has a total weight of 1.386 tons. It is also called Jumeirah Bridge 2, as it connects the district of Al Safa to the archaeological site of Jumeirah, one of the most important archaeological sites of the UAE with findings from the 6th century AD.

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FOOTBRIDGE 02

Location
Dubai, United Arab Emirates

Client
Joint Venture Road & Transport Authority (RTA), Meydan and Meraas

Contractor
Belhasa Six Construct LLC

Scope of work
Design, fabrication and installation of steel structures

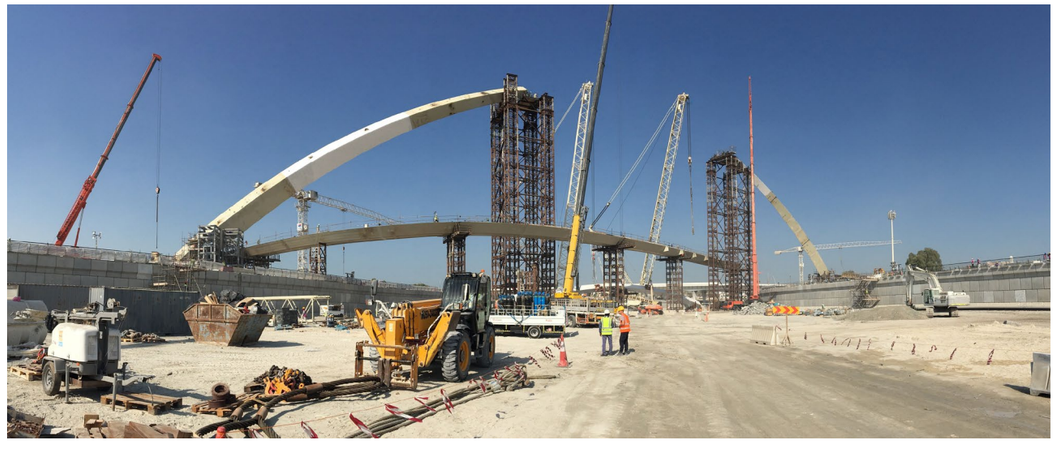
Period of execution
2016

Weight
2.300 tons

Length
205 meters

Second footbridge crossing the Dubai Water Canal, it has a 205 meters long white arch that reaches 50 meters of height. His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice-President and Prime Minister of the United Arab Emirates and Governor of Dubai has renamed the project “Bridge of Tolerance” symbolizing the connection between the 200 cultures and nationalities present in the city.

This footbridge is characterized by a rhomboidal section arch with a largeness of 205 meters and a height of 50 meters, which has a cross-section of about 6 meters at the base that tapers up to 2.1 meters in the key section, giving a sense of lightness and simplicity. The arch was preassembled and welded on the ground in seven macro-segments lifted then on the top of temporary towers, reaching at their tallest point 53 meters of height, by means of two 600-tons crawler cranes. The weight of the arch alone is 1.700 tons and, through 20 steel cables (for a total length of 858 meters), supports the S-shaped deck, 6.7 meters wide, curling in two concrete ramps wrapped around the bases of the arch. The width of the free span, evoking a sense of absence of gravity as if the footbridge floated gently above the water, gives to the footbridge an impressive visual impact.



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FOOTBRIDGE 01

Location
Dubai, United Arab Emirates

Client
Joint Venture Road & Transport Authority (RTA), Meydan and Meraas

Contractor
Belhasa Six Construct LLC

Scope of work
Design, fabrication and installation of steel structures

Period of execution
2016

Weight
510 tons

Length
122 meters

The design of the first of three steel footbridges crossing the Dubai Water Canal has been inspired by the Arab nomadic culture of trade and fishing history, recalling the structures of the tents used by the Bedouins in the Y-shaped pillars and suspension cables of the footbridge.

This project, also called Safa Bridge, connects the Al Wasl district to one of the green areas of the city, Safa Park. The structure is suspended at a height of 8.5 meters above the water level to allow the navigation space along the canal and it is supported by two Y-shaped antennas, installed from the inside of the canal before the flooding of the water, having a weight of 90 tons each and a height of 35 meters. The deck is 122 meters long, 6.2 meters wide and was dispatched from the factory in eleven segments then installed on temporary towers and the completion of the welding. The structure could support its weight, proceeding then with the removal of temporary towers, only after the installation and tensioning of 252 meters of steel cables.

EXPO-FAIR FOOTBRIDGE (PEF)

Location
Milan, Italy

Client
EXPO 2015 S.p.A.

Contractor
Passerella Scarl

Scope of work
Design, fabrication and installation of steel structures

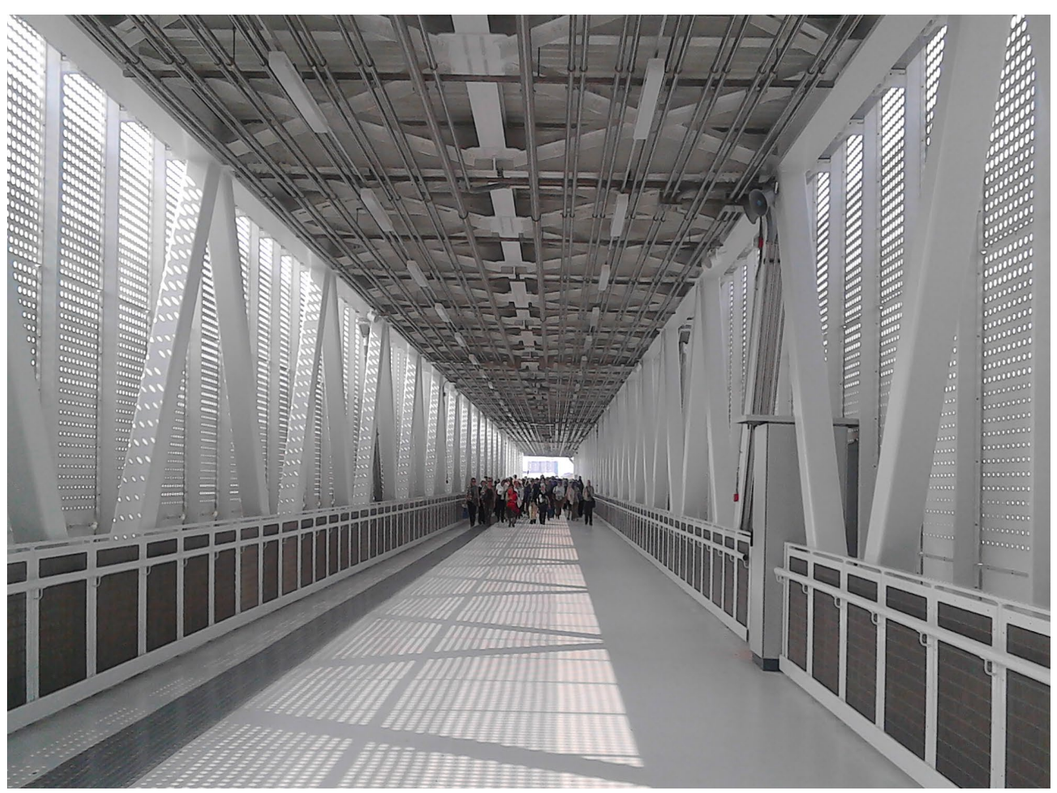
Period of execution
2015

Weight
2.100 tons

Length
527 meters

The PEF was built at entrance of the 2015 Expo in Milan, connecting the world exhibition to the Rho commercial area. Unlike most of the others temporary structures built for the Expo, which have been dismantled at the end of the event, this footbridge remained in place and at disposal for residents.

The footbridge has a length of 527 meters and passes over the below road and train traffic, facilitating the visitors flow from one side to the other. The structure has, altogether, a weight of 2.100 tons composed by more than 5 kilometers of reticular welded beams. From the installation point of view, segments of the structure with different lengths have been assembled on dedicated areas on the ground, then lifted with 400 tons cranes and positioned on top of the supporting columns.



Ideas **shape** the world

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